

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of

CHRISTOPHER J. FREITAS ET AL.

Serial No.: 10/782,634

Filed: February 18, 2004

For: N-PHASE INTERFACE

TRACKING METHOD UTILIZING

UNIQUE ENUMERATION OF

MICROGRID CELLS

GROUP ART UNIT:

EXAMINER:

P.O. Box 6006 San Ramon, CA 94583-0806

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents P. O. Box 1450 Alexandria, VA 22313-1450

Sir:

This Information Disclosure Statement is submitted pursuant to 37 CFR §§ 1.56, 1.98 and 1.97, particularly 1.97(c). The documents listed on the attached Forms PTO/SB/08A and PTO/SB/08B are brought to the Examiner's attention.

> I hereby certify that I have a reasonable basis for believing that this correspondence will be deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents,

P. O. Box 1450, Alexandria, VA 22313-1450, on _

May 5, 2004 Date of Deposit

Nancy Cantero

May 5, 2004

Information Disclosure Statement USSN 10/782,634 Page 2

Copies of the foreign patent and non-patent literature documents are enclosed.

Respectfully submitted,

Richard J. Schulte Attorney for Applicants

Reg. No. 35,350 (925) 842-1476

RJSchulte:ncc Enclosures

May 5, 2004

PTO/SB/08a (08-03)

Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449. STATEMENT BY APPLICANT

(Use as many sheets as necessary)

of 2

Sheet

Complete if Known				
Application Number	10/782,634			
Filing Date	FEBRUARY 18, 2004			
First Named Inventor	CHRISTOPHER J. FREITAS			
Art Unit				
Examiner Name				
Attorney Docket Number	T-6264			

U.S. PATENT DOCUMENTS						
Examiner Initials *	Cite No.1	Document Number Number - Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevar Passages or Relevant	
		`			Figures Appear	
	AA	US - 5,072,404	12-10-1991	Schmitzer et al.		
	AB	US - 5,315,530	05-24-1994	Gerhardt et al.		
	AC	US - 5,455,780	10-03-1995	Nguyen et al.		
	AD	US - 5,537,641	07-16-1996	da Vitoria Lobo et al.		
	AE	US - 5,550,761	08-27-1996	Pauchon et al.		
	AF	US - 5,801,969	09-01-1998	Nagahama		
	AG	US - 5,912,823	06-15-1999	Grant		
	AH	US - 5,960,187	09-28-1999	Faille et al.		
	Al	US - 6,028,992	02-22-2000	Henriot et al.		
	AJ	US - 6,096,088	08-01-2000	Yu et al.		
	AK	US - 6,266,071 B1	07-24-2001	Stam et al.		
	AL	US - 2002/0016701 A1	02-07-2002	Duret et al.		
	AM	US - 2002/0046014 A1	04-18-2002	Kennon		
-	AN	US - 6,424,923 B1	07-23-2002	Huyer et al.		
	AO	US - 2002/0177986 A1	11-28-2002	Moeckel et al.		
	AP	US - 6,512,999 B1	01-28-2003	Dimas et al.		
	AQ	US - 6,516,292 B2	02-04-2003	Yahalom		
	AR	US -				

	FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	Foreign Patent Document Country Code ³ - Number ⁴ - Kind Code ⁵ (<i>if known</i>)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁸	
	BA						
	ВВ						
	ВС						
	BD						
	BE						

DISCLAIMERS:

This form is being used for the convenience of the patent office. It is not to be construed as an admission by the Applicant(s) that any of the cited references are prior art.

Examiner Signature	Date Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. Applicant's unique citation designation number (optional). See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

PTO/SB/08b(08-03)

Approved for use through 07/31/2006. OMB 0651-0031 U.S. Patent and Trademark Office, U.S. DEPARTMENT OF COMMERCE

are required to respond to a collection of information unless it contains a valid OMB control number Under the Paperwork Re

Substitute for form 1449B/PTO

INFORMATION DISCLOS STATEMENT BY APPLICANT

Complete if Known Application Number 10/782,634 Filing Date **FEBRUARY 18, 2004** First Named Inventor CHRISTOPHER J. FREITAS Art Unit Examiner Name

(Use as many sheets as necessary)

Sheet 2 of 2 Attorney Docket Number T-6264

		NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. ¹				
	CA	HIRT, C.W., and NICHOLS, B.D., Volume of Fluid (VOF) Method for the Dynamics of Free Boundaries, <i>Journal of Computational Physics</i> , Volume 39, 201-225, 1981.			
	СВ	RIDER, W.J., and KOTHE, D.B., Reconstructing Volume Tracking, <i>Journal of Computational Physics</i> , Volume 141, 112-152, 1998.			
	СС	GUEYFFIER, D., LI, J., NADIM, A., SCARDOVELLI, R., and ZALESKI, S., Volume-of-Fluid Interface Tracking With Smotthed Surface Stress Methods for Three Dimensional Flows, <i>Journal of Computational Physics</i> , Volume 152, 423-456, 1999.			
	CD	SCARDOVELLI, R., and ZALESKI, S., Analytical Relations Connecting Linear Interfaces and Volume Fractions in Rectangular Grids, <i>Journal of Computational Physics</i> , Volume 164, 228-237, 2000.			
	CE	UDAYKUMAR, H.S., MITTAL, R., and RAMPUNGGOON, P., Interface Tracking Finite Volume Method for Complex Solid-Fluid Interactions on Fixed Meshes, Communications in Numerical Methods in Engineering, Volume 18, 89-97, 2002.			
-	CF	DAI, M., WANG, H., PEROT, J.B., and SCHMIDT, D.P., A Numerical Method for Interface Tracking, <i>ILASS Americas</i> , 15 th Annual Conference on Liquid Atomization and Spray Systems, Madison, WI, May 2002.			
	CG	SCARDOVELLI, R., AULISA, E., MANSERVISI, S., and MARRA, V., A Marker-VOF Algorithm for Incompressible Flows With Interfaces, <i>Proceedings of ASME FEDSM'02, ASME 2002 Fluids Engineering Division Summer Meeting, Montreal, Quebec, Canada, FEDSM'2002-31241</i> , 1-6, July 14-18, 2002.			
	СН	GAO, D., MORLEY, N.B., and DHIR, V., Numerical Simulation of Wavy Falling Film Flow Using VOF Method, Journal of Computational Physics, Volume 192, 624-642, 2003.			
	CI				

DISCLAIMERS:

This form is being used for the convenience of the patent office. It is not to be construed as an admission by the Applicant(s) that any of the cited references are prior art.

Examiner	Date	
Signature	Considered	

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.